REMARKS

Claims 1-30 are currently pending in the present application.

By the foregoing amendments, independent claims 1, 11 and 12 have been amended to delete the word "about" from in front of 20% and 60%. This amendment eliminates the potential question of numerical overlap with the "color stabilizing-effective amount" defined in the Fry et al. reference patent at col. 4, lines 39-44.

No new matter has been introduced by said amendment. Applicants submit that no additional claims fees are due since the amendment does not add any new claims. A complete listing of all claims ever presented is included herein in accordance with 37 C.F.R. §1.121(c). This amendment is being submitted along with a Request for Continued Examination. Entry of the amendments is therefore proper and respectfully requested.

I. The Rejection of composition claims 1-11 and 24-29 for Double Patenting of the Obviousness-type over Fry et al. is a Clear Error in Claim Interpretation

Applicants' argument below, traversing the Examiner's sole rejection regarding claims 1-11 and 24-29 is addressed to Applicants' independent composition claim 1 from which all of claims 2-10 and 24-29 depend. Independent composition claim 11 is narrower in three respects than claim 1.

A. The Examiner's Rejection of composition claims 1-11 and 24-29 for Double Patenting of the Obviousness-type over Fry et al.:

In paragraph 4 of the Final Action, dated May 27, 2004, the Examiner quotes claim 1 of Fry et al. (hereinafter, "the Patent"), underlining as follows:

Patent Claim 1. "A polymer derivative comprising a polyalkyleneimine backbone having a number of reactive amino functionalities, each reactive amino functionality having at least one reactive hydrogen atom, wherein a color stabilizing-effective amount of the number of reactive

amino functionalities have a substituent independently selected from the group consisting of carboxylic acids and amine-protecting compounds substituted in place of the at least one reactive hydrogen atom, and wherein at least about 20% of the reactive amino functionalities have a carboxylic acid substituted in place of the at least one reactive hydrogen atom."

The Examiner then (erroneously) reads the second underlined portion into the definition of "color-stabilizing amount", concluding that this equates to Applicants' "20 to 60% of the number of reactive amino functions having a substituent compound independently selected from carboxylic acids".

B. *Applicants' Traversal*

There are three parts to claim 1 of the Patent. The first part sets out the amount of the number of reactive amino functionalities having substituent compounds independently selected from the group consisting of carboxylic acids and amine-protecting compounds substituted in place of the at least one reactive hydrogen atom. This amount is "a color stabilizing-effective amount". This amount is *not* defined in the claim. It is defined in the specification of the Patent at col. 4, lines 39-44, as follows: "a 'color stabilizing-effective amount', means an amount which is at least about 60-65% of the total number of reactive amino functionalities present in a given polyalkyleneimine backbone." Moreover, the Patent at col. 4, lines 44-60, goes on to specifically teach an increasingly higher amount, i.e. from 75% up to 94% of the total number of reactive amino functionalities as the preferred color-stabilizing-effective amount.

Applicants' claim 1, on the other hand, includes only 20% to 60% as the amount of reactive amino functionalities having substituent-compounds substituted in place of the at least one reactive hydrogen atom. Applicants' amount is therefore clearly distinct from that of the Patent and is unobvious from the Patent, as the Patent teaches increasingly higher preferred amounts from 75% up to 94%.

The second part of claim 1 of the Patent sets out the type of substituents replacing the at least one active hydrogen, namely, " a substituent independently selected from the group consisting of carboxylic acids and amine-protecting compounds". At col. 6, lines 8-11, the Patent states: "The carboxylic acid(s) and the amine-protecting compound(s) are generally reacted with the polyalkyleneimine in a acid:protectant molar ratio of from about 1:4 to about 4:1." Thus, at least 20% of these substituents is always an amine-protecting compound. In Applicants' claim 1, on the other hand, " each substituent-compound independently selected from the group consisting of carboxylic acids having from about 14 to about 20 carbon atoms." Accordingly, Applicants' claimed polyalkylenimines are distinct from those of the Patent in this second aspect also.

For the reason just stated, the third part of Patent claim 1 does not come into effect with respect to Applicants' claim 1. The third part of claim 1 of the Patent states: "wherein at least about 20% of the reactive amino functionalities have a carboxylic acid substituted in place of the at least one reactive hydrogen atom." This part of the Patent claim 1 refers only to the amount of carboxylic acid substituents versus the amount of amino-protecting substituents making up the color-stabilizing-effective amount (i.e. at least 60 to 65%) of the number of reactive amino functionalities. As noted above, in the Patent claim 1, at least 20% of the substituent compounds are amine-protecting groups, not present in Applicants' claim 1 compositions.

C. *Conclusion*

As shown above, Applicants' composition of claim 1 is patentably distinct and unobvious from the Patent in the following three aspects:

(1) The amount of the number of substituent compounds substituted on the at least one reactive hydrogen of the amine functionalities is from 20% to 60 % rather than from 60-65% as in the Patent.

(2) The substituent compounds substituted on the at least one reactive hydrogen of the amine functionalities are only carboxylic acids instead of the carboxylic acids and amine-protecting compounds of the Patent.

(3) There is no ratio of carboxylic acid substituents to amine-protecting substituents as in the Patent.

Applicants submit, therefore, that their claim 1 does not constitute double patenting of the obviousness-type over the Patent and respectfully solicit withdrawal of this rejection of claims 1-11 and 24-29.

II. The Rejection of process claims 12-23 for Double Patenting of the Obviousness-type over Fry et al. is a Clear Error in Claim Interpretation

Applicants' argument below, traversing the Examiner's sole rejection regarding process claims 12-23 is addressed to Applicants' independent process claim 12 from which all of claims 13-23 depend.

A. *The Examiner's Rejection process claims 12-23 for Double Patenting of the Obviousness-type over Fry et al.:*

In paragraph 13 of the Final Action, dated May 27, 2004, the Examiner quotes claim 1 of over Fry et al. (hereinafter "the Patent") as follows:

> "A process for preparing a polymer derivative, the process comprising (a) providing a polyalkyleneimine having a number of reactive amino functionalities per mole, (b) reacting the polyalkyleneimine with at least one carboxylic acid and an amine-protecting compound, wherein a total molar amount of the at least one carboxylic acid and amine-protecting compound is sufficient to derivatize a color stabilizing-effective amount of the number of reactive amino functionalities per mole."
> (Emphasis added)

In paragraph 14 of the Final Action, the Examiner states : "This [claim] corresponds directly to applicant's claim 12."

B. *Applicants' Traversal*

There are two parts to process claim 16 of the Patent, neither of which corresponds directly to Applicants' claim 12.

The first part of claim 16 of the Patent sets out the reactant, namely, "at least one carboxylic acid and an amine-protecting compound." Applicants' claim 12, on the other hand, states: " an amount of substituent-compounds comprising one or more carboxylic acids having from about 14 to about 20 carbon atoms." (Emphasis added.) Thus, Applicants' reactant is patentably distinct from that of the Patent which teaches two reactants.

The second part of claim 16 of the Patent states: " sufficient to derivatize a color stabilizing-effective amount of the number of reactive amino functionalities." (Emphasis added.) This amount is *not* defined in the claim. It is defined in the specification of the Patent at col. 4, lines 39-44, as follows: "a 'color stabilizing-effective amount', means an amount which is at least about 60-65% of the total number of reactive amino functionalities present in a given polyalkyleneimine backbone." Moreover, the Patent at col. 4, lines 44-60, goes on to specifically teach an increasingly higher amount, i.e. from 75% up to 94% of the total number of reactive amino functionalities as the preferred color-stabilizing-effective amount.

Applicants' claim 12, on the other hand, states: "the amount of the substituent-compounds used is sufficient to derivatize from about 20% to about 60% of the number of reactive amino functionalities per mole." Applicants' amount is therefore clearly distinct from that of the Patent and is unobvious from the Patent, as the Patent teaches increasingly higher preferred amounts from 75% up to 94%.

C. *Conclusion*

As shown above, Applicants' process of claim 12 is patentably distinct and unobvious from the Patent in the following two aspects:

(1) Applicants' reactant (b) is selected only from carboxylic acids rather than carboxylic acids and amine-protecting compounds (the latter of which must be at least 20% of the total reactants) in the Patent..

(2) The amount of the number of substituent compounds substituted sufficient to derivatize the number of the amine functionalities is from 20% to 60 % rather than from 60-65% as in the Patent.

Applicants submit, therefore, that their claim 12 does not constitute double patenting of the obviousness-type over the Patent and respectfully solicit withdrawal of this rejection of claims 12-23.

III. *Request for Withdrawal of Rejections and Allowance*

Applicants submit that claims 1-30, as amended, do not constitute double patenting of the obviousness-type over Fry et al., the sole rejection in the Final Action dated May 24, 2004. Accordingly, reconsideration, withdrawal of the rejections and a Notice of Allowance for all pending claims are respectfully requested.

Respectfully submitted,
DOUGLAS F. FRY, *et al.*

4/25/05
(Date):

By: Arthur G. Seifert

ARTHUR G. SEIFERT
Registration No. 28,040
COGNIS CORPORATION
300 Brookside Avenue
Ambler, PA 19002
Telephone: (215): 628-1129
Facsimile: (215): 628-1345
E-Mail: ART.SEIFERT-CONTRACT@COGNIS-US.COM

AGS:mc